

a conductive backing block assembly affixed in opposition to the bottom surface of the two dimensional array which comprises:

separate preformed plates of acoustic backing material;

printed circuit substrates with conductive traces alternately located between ones of the separate preformed plates; and

adhesive located between the adjoining surfaces of the plates and the printed circuit substrates to bond the plates of acoustic backing material and printed circuit substrates into a unitary backing block structure.

17. A conductive backing block assembly for a two dimensional ultrasonic transducer array comprising:

preformed plates of acoustic backing material;

printed circuit substrates located between the plates of acoustic backing material and having conductive traces; and

adhesive located between the adjoining surfaces of the plates and printed circuit substrates to bond the preformed plates and printed circuit substrates into a unitary backing block assembly.

REMARKS

The allowance of Claims 28-32 is gratefully acknowledged.

Claims 1-8 were rejected under 35 U.S.C. §102(b) as being anticipated by US Pat. 4,825,115 (Kawabe et al.) Amended Claim 1 describes a two dimensional ultrasonic transducer array probe comprising a two dimensional array of ultrasonic transducer elements having a bottom surface from which undesired ultrasonic energy is emitted; and a conductive backing block assembly affixed in opposition to the bottom surface of the two dimensional array which comprises separate preformed plates of acoustic backing material; printed circuit substrates with conductive traces alternately located between ones of the separate preformed plates; and adhesive located between the adjoining surfaces of the plates and the printed circuit substrates to bond the plates of acoustic backing material and printed circuit substrates into a unitary backing block structure.

The invention of Claim 1 provides a probe which can be assembled quickly and easily from preformed backing material plates, printed circuit substrates, and adhesive. The conductive backing block assembly can be assembled independent